

1 **WHAT IS CLAIMED IS:**

2 1. A flexible LED cable light, comprising
3 a flexible and flat insulation body having multiple notches;
4 at least two wires embedded in parallel in the insulation body;
5 multiple LEDs respectively mounted in the notches and electrically
6 connected between the at least two wires; and
7 a protective layer covering the insulation body and the LEDs wherein
8 the protective layer is made of light transmissive material.

9 2. The cable light as claimed in claim 1, wherein the multiple LEDs are
10 surface-mounted technology (SMT) packaged LEDs.

11 3. The cable light as claimed in claim 1, wherein the multiple LEDs are
12 LED bare chips.

13 4. The cable light as claimed in claim 1, wherein the multiple LEDs are
14 sealed cube LEDs.

15 5. The cable light as claimed in claim 1, wherein the multiple LEDs are
16 electronically connected in parallel to the at least two wires.

17 6. The cable light as claimed in claim 1, wherein the multiple LEDs are
18 connected to form multiple strings each comprising a plurality of LEDs; and
19 each string of LEDs has at least one resistor connected to the LEDs of the
20 string in serial.

21 7. The cable light as claimed in claim 1, wherein each LED is mounted
22 on a circuit board connected to the at least two wires by conductors.

23 8. The cable light as claimed in claim 6, wherein the strings are
24 connected in parallel to the at least two wires.

1 9. The cable light as claimed in claim 8, wherein the multiple notches
2 are arranged in at least one row.

3 10. The cable light as claimed in claim 9 further comprising at least one
4 longitudinal slot is defined in the insulation body, wherein each one of the at
5 least one longitudinal slot communicates with the notches in a same row,
6 wherein each one of the at least one resistor is mounted in one of the at least
7 one longitudinal slot.

8 11. The cable light as claimed in claim 10 further comprising multiple
9 pairs of holes defined in the insulation to make portions of the at least two
10 wires be exposed, wherein the multiple strips of LEDs are electrically
11 connected to the at least two wires through the pairs of holes.

12 12. A flexible LED cable light assembly comprising
13 two segments each having

14 a flexible and flat insulation body having multiple slots;
15 at least two wires embedded in parallel in the insulation
16 body;

17 multiple LEDs respectively mounted in the slots and
18 electrically connected between the at least two wires; and

19 a protective layer covering the insulation body and the
20 LEDs wherein the protective layer is made of light transmissive material; and

21 a connector composed of a base having two opposite ends, at least two
22 first awl-shaped prongs with sharp points formed on one end and at least two
23 second awl-shaped prongs with sharp points formed on the other end, whereby
24 the first awl-shaped prongs are pushed into the insulation body of one

1 segment and electrically connected respectively to the at least two wires and
2 the second awl-shaped prongs are pushed into the insulation body of the other
3 segment and electrically connected respectively to the at least two wires.

4 13. The cable light as claimed in claim 12, wherein the multiple LEDs
5 are surface-mounted technology (SMT) packaged LEDs.

6 14. The cable light as claimed in claim 12, wherein the multiple LEDs
7 are LED bare chips.

8 15. The cable light as claimed in claim 12, wherein the multiple LEDs
9 are sealed cube LEDs.

10 16. The cable light as claimed in claim 12, wherein the multiple LEDs
11 are electronically connected in parallel to the at least two wires.

12 17. The cable light as claimed in claim 12, wherein the multiple LEDs
13 are connected to form multiple strings each comprising a plurality of LEDs;

14 and

15 each string of LEDs has at least one resistor connected to the LEDs
16 of the string in serial.

17 18. The cable light as claimed in claim 17, wherein the strings are
18 connected in parallel to the at least two wires and the multiple notches are
19 arranged in at least one row.

20 19. The cable light as claimed in claim 12, wherein the multiple LEDs
21 are respectively mounted on circuit board connected to the at least two wires by
22 conductors.

23 20. The cable light as claimed in claim 18, further comprising
24 at least one longitudinal slot is defined in the insulation body, wherein

1 each one of the at least one longitudinal slot communicates with the notches in
2 a same row, wherein each one of the at least one resistor is mounted in one of
3 the at least one longitudinal slot; and
4 multiple pairs of holes defined in the insulation to make portions of the
5 at least two wires be exposed, wherein the multiple strips of LEDs are
6 electrically connected to the at least two wires through the pairs of holes.